

**CUSTOMIZABLE WEB SITE ACCESS SYSTEM
AND METHOD THEREFORE**

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CLAIM TO PRIORITY

The present application hereby claims priority to United States Provisional Application No. 60/422,731, filed October 31, 2002, and entitled "Customizable Web Site Access System and Method Therefore". Additionally, the present application is a continuation-in-part application of United States Patent Application No. 10/014,929, filed October 22, 2001, and
10 entitled "Customizable Web Site Access System and Method Therefore", which claims priority to both United States Provisional Application No. 60/242,340, filed October 20, 2000 and entitled "Customizable Web Site Access System and Method Therefore", and United States Provisional Application No. 60/286,189, filed April 24, 2001, and entitled "Customizable Web Site Access System and Method Therefore". Each of the above-identified utility and provisional
15 patent applications is hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention relates to the manner in which a user and/or developer of the World Wide Web presents and/or accesses a web site and, more specifically, to a system and
20 method to enable multiple types of automated navigation through a plurality of web site addresses.

BACKGROUND OF THE INVENTION

Currently, various web site owners and developers are attempting to captivate their audience with cutting-edge presentations through large investments in animation and streaming media. Those investments have decayed rapidly as the content of the site changes and becomes
5 obsolete. However, without attempting to use these types of costly presentations, web site owners and developers must passively accept the random paths through the available content that visitors to the site choose to review, resulting in a significant amount of site content that is never seen.

From a user's perspective, access to the World Wide Web is most often achieved by
10 accessing a single-source, static destination, e.g., a single web site address, and navigating vertically through multiple pages at a single destination by selecting navigational links within a web page. Alternatively, the user utilizes the results list of a search engine to access the various web sites that are directed to the user's topic of interest. To review numerous web sites in the results list, the user must continually return from the topic site to the list to reach the next web
15 page link making navigation of the sites an often unnecessarily lengthy and tedious task.

As such, there is a need for a web site access system that enables web site owners and developers to provide an automated presentation of desired web page sequences without the costs of reprogramming site content or installing development tools, and that enables web site users to adjust those presentations to their preferences and/or enact their own presentation of web
20 sites of interest, such as through the use of search engine results.

SUMMARY OF THE INVENTION

The needs described above are in large measure addressed by the customizable web site access system of the present invention. The system is comprised of a software program incorporating both a composing portion and a performing portion. The composing portion of the software program is used to create a presentation. The presentation includes a list of URLs for display, a desired sequence of display of the URLs, and a duration of display of the URLs. The performing portion of the software program operates to load and automatically display the presentation to a user of the web according to the URL list, sequence of display, and duration of display.

The performing portion of the software program also preferably provides a control panel whereby a web user can not only pause or stop the presentation but can also change the sequence and/or duration of display of each of the URLs of the presentation. The use of the software program of the present invention enables various types of navigation through the web including horizontal navigation, vertical navigation, or item navigation of web sites.

In a preferred embodiment of the invention, the web site access system comprises an auto composer including the components of a composer and performer. The composer composes a web slide show presentation through automatic extraction of web page details from a desired web page. The web page details include one or more of the following: a plurality of hyperlinks found within the desired web page that provides a plurality of URLs; a presentation/rendition text file within the web site of the desired web page that provides a plurality of URLs; and a meta tag within the desired web page that provides a plurality of URLs. The performer displays

the web slide show presentation in order of the plurality of URLS provided by the extracted web page details.

BRIEF DESCRIPTION OF THE DRAWINGS

5 Fig. 1 is a block diagram depicting a customizable web site access system of the present invention.

 Fig. 2A is a flow chart depicting the operation of the composer portion of the customizable web site access system of the present invention.

 Fig. 2B is a flow chart depicting the operation of the performer portion of the
10 customizable web site access system of the present invention.

 Fig. 3 is an example of a web page for the entry of desired user data to be implemented through the customizable web site access system of the present invention.

 Fig. 4 is an example of a header that may be displayed at the top of each web site accessed by the system of the present invention.

15 Fig. 5 is an example of a horizontal navigation web site address list.

 Fig. 6 depicts a typical web site home page incorporating a plurality of links to other web pages within the web site.

 Fig. 7 is an example of a vertical navigation web site address list.

 Fig. 8 depicts the web site of Fig. 6, wherein the present invention has been invoked,
20 provides a display screen, and presents a slide show of the linked web pages within the web site.

 Fig. 9 (pages 1 and 2) depicts a typical search result list of a search performed by a search engine.

Fig. 10 is an example of an item navigation web site address list corresponding to the search results of Fig. 9.

Fig. 11 depicts the search result list of Fig. 9, wherein the present invention has been invoked, provides a display screen, and presents a slide show of the addresses within the search
5 result list.

Fig. 12 is a flow chart depicting the auto compose function of the system of the present invention.

Fig. 13 provides an example of an auto compose screen for display to a user of the present invention.

10 Fig. 14 provides an example of a pop-up window whereby a user may enter a desired web site for automatic composition of a presentation.

Fig. 15 is an example text file listing of the URLs that may be used by the composer to automatically compose a presentation based on the URLs.

Fig. 16 is an example of a pop-up control window panel that may be used to control an
15 automatically composed presentation, or other types of presentations generated by the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The web site access system of the present invention enables site owners and developers to
20 create, in a matter of minutes, automated and customized presentations of multiple web pages that dynamically present more content in less time to users without the expense of any new development. The web site access system of the present invention operates to combine the

bookmark feature of web browsers with the slide show feature of presentation software. With the present invention, site owners and developers can easily change the page sequence, adjust the timing, and add an audio overlay to the web presentation. At the same time, a user visiting a site can view those presentations of interest at their desired pace and a user presented with a search engine results list can view the list's web sites in an automated, sequential fashion without returning continuously to the original search engine results list.

Fig.1 provides an overview block diagram of the system architecture of the customizable web site access system 10 of the present invention. As shown, system 10 is a software program incorporating two main components, a composer 12 and a performer 14 that are preferably stored on a host server 16. Composer 12 may be manually invoked by a site owner/developer 18 to create a customized presentation 20 of multiple web pages or may be automatically invoked by a query-based system 22, e.g., search engine, to create a customized presentation of the multiple web pages resulting from a query. In either instance, the URLs of the sites that comprise the presentation and the corresponding options of the presentation, e.g., sequence of the URLs, the duration that each is to be displayed, whether the sequence is to be continuously repeated, etc., are stored on the host server 16 or, alternatively, sent directly to the performer 14 for display via a programming interface.

The performer 14 is that portion of the software of system 10 that a user/visitor 24 to the web utilizes to access and view the customized presentation 20. The performer 14 may be activated by a user 24 by simply entering a web site, by selecting a site from a directory of sites, by selecting a hyperlink embedded within a message, by selecting a certain presentation 20 from a gallery of presentations 20, etc. Essentially, any manner of reaching a web site can be

established as the invoker of the performer 14. Upon invoking the performer 14, i.e, activating the performer active server page (.asp), the user 24 is not only provided with the presentation 20 but is also provided by the performer with the ability to modify the presentation 20 to their desires, e.g., pausing on a certain page, escaping/canceling the performer, changing the sequence
5 of pages displayed, and changing the duration of pages displayed.

A flowchart depicting the preferred operation of the composer 12 is shown in Fig. 2A. As indicated, per input block 302, composer 12 preferably prompts the site owner/developer to enter owner registration information. The owner registration information may be in the form of a name, password, or other type of user identifier. The owner registration information is then used
10 to determine whether the registrant is a new registrant, per decision block 303. If the registrant is new, a new registrant identifier is stored at the host server 16, per stored data block 305, and the new registrant is prompted to enter their desired preferences for their presentation 20 (as described per option one below). If the registrant is not new, the registration identifier is verified, per operations block 304, to determine if the registration data corresponds to previously
15 entered registration data that is stored on host server 16.

If the entered registration data does not correspond to previously entered registration data, per decision block 306, the site owner/developer is requested to enter their owner registration information again, per input block 302. However, if the entered registration data does correspond to previously entered registration data, per decision block 306, the site
20 owner/developer is provided with two options: (1) modifying their previously entered desired presentation preferences; or (2) using the previously entered settings, per decision block 318.

Option one follows the left-hand side of the flowchart of Fig. 2A and, as shown, the site owner/developer is requested to input/modify their desired settings. Specifically, the site owner/developer is requested to input their desired list of web sites through which they would like system 10 to sequence, per input block 308. The manner of input may be an interactive user interface, e.g., the user enters the list through a keyboard, or it may be a previously existing text file containing a plurality of web addresses that is retrieved as a parameter list by an automatic operation of composer 12. Still another manner of input may be the results list of a search engine or data base query. The results list may be entered as a parameter list by an automatic operation of composer 12, e.g., composer 12 automatically receives the results list of web site addresses and produces a corresponding presentation 20. Alternatively, the site owner/developer may accept the default values of system 10, per input block 309. In the preferred embodiment of the present invention, the site owner/developer is provided with all above-described options for entering a desired list of web site addresses. Of course, numerous other manners of entering a desired list of web site addresses may be used without departing from the spirit or scope of the invention.

Per the flowchart of Fig. 2A, the site owner/developer is also requested to input the desired duration of display for each listed web site, per input block 310, or accept the default values of system 10, per input block 309. Alternatively, the site owner/developer may enter a default duration to be used with each listed web site.

The site owner/developer is further requested to enter the number of times they would like the performer 14 of system 10 to replay their entered list of web sites, per input block 312, or accept the default values of system 10, per input block 309. Alternatively, the site

owner/developer may simply enter that they wish their entered list of web sites to be continuously replayed. The site owner/developer is also requested to enter the order in which they would like their entered list of web sites to be displayed, i.e., in sequential order (the order in which the site owner/developer entered the web sites in their list) or in random order, per input block 314, or accept the default values of system 10, per input block 309. Whether the preferences comprise new settings, previously entered settings (decision block 318) or default values, each of the preferences is stored on the host server 16, per stored data block 316.

Option two, as mentioned above, comprises using the previously entered settings, per decision block 318.

A flowchart depicting the preferred operation of the performer 14 is shown in Fig. 2B. Upon being activated by the selection of a presentation 20 or by the initiation of a presentation 20, the performer 14 operates to load the presentation 20 including the URLs and presentation preferences, per operations block 330, and to sequence through the URLs with display to the user 24, per operations block 332. The performer 14 may be activated by the user 24 selecting the presentation 20 from a gallery of presentations, by the user 24 entering a web site that has been pre-configured with the composer 12 through activation of a hyperlink within another web site or e-mail message, by the user 24 opening an e-mail message with a hyperlink that activates the composer 12 directly, or by the user 24 performing a query with a results listing that automatically (or manually) activates the performer 12. The performer 14 additionally operates to present the user with a generic, presentation-independent control panel, per operations block 334, such as the system-interactive user area 54 of Fig. 4. The performer 14 continues to sequence through the URLs with the default presentation settings until the presentation 20 is

paused or stopped by the user, per operations block 336. Alternatively, if the user 24 has modified the presentation settings, per decision block 338, the performer 14 continues the presentation 20 with the new presentation settings until the presentation 20 is stopped or paused by the user 24, per operations block 340.

5 In the preferred embodiment of system 10, and when using the composer 12, the site owner/developer is prompted to enter their presentation settings via interaction with a data entry screen 40, an example of which is shown in Fig. 3. Data entry screen 40 preferably includes a web site list field 42 that allows the site owner/developer to enter a web site address (URL) and a duration of display in a minute and second format (mm:ss). Data entry screen 40 also preferably
10 includes a default duration field 44 should the site owner/developer not desire to enter a specific display time for each entered web site address. Data entry screen 40 also preferably includes a replay field 46 to indicate the number of times to replay the list of desired web sites, or to indicate a continuous replay, and preferably includes an order field 48 to indicate sequential or random display. Of course, numerous other manners of obtaining a site owner/developer's
15 preferences may be used without departing from the spirit or scope of the invention.

 Upon displaying a site owner/developer's list of desired web sites per the operation of the performer 14, system 10 preferably utilizes a display screen 50. An example of such a display screen is shown in Fig. 4. Display screen 50 includes a web site display area 52 and a system-interactive user area 54. System-interactive user area 54 preferably includes a site field 56, a
20 time remaining field 58, and a replay field 60. System-interactive user area 54 also preferably includes a pause button 62, a site-forward button 64, a site-backward button 66, an edit options button 68, and a logout button 70.

Site field 56 provides an indication of the total number of web sites within a site owner/developer's entered URL list and an indication of the current web site's location within the list, e.g., 4 of 12. Time remaining field 58 provides an indication of how much longer the current web site will be displayed before system 10 displays the next web site. Replay field 60
5 provides an indication of the requested number of replays for the entered web site list, or whether the replay is to be continuous.

Pause button 62 enables a user of system 10 to stop the sequencing of the list of web sites and maintain the currently presented web site. Site-forward button 64 enables a user of system 10 to go to the next web site in the user-entered list or to go to the very last web site in the list.
10 Site-backward button 66 similarly enables the user of system 10 to go to the previous web site in the user-entered list or to go to the very first web site in the list. Edit options button 68 enables a user of system 10 to re-access data entry screen 40 to modify entered preferences. Logout button 70 enables a user of system 10 to exit system 10 and return to vertical navigation of web sites. Of course, numerous other manners of interacting with the web site display of system 10 may be
15 used without departing from the spirit or scope of the invention.

It should be noted that while the present invention has been described with the composer 12 being utilized by only a site owner/developer, a user may utilize the composer 12 to create their own personalized presentation of web favorites.

20 **Horizontal Navigation**

The system 10 of the present invention may be used to achieve horizontal navigation of a plurality of web site addresses. An example of a horizontal navigation web site address list, as

would be entered into web site list field 42 through use of the composer 12, is provided in Fig. 5. As can be seen, each web site address represents a new and distinct address that would likely be unreachable via links in the other web site addresses. Thus, without the present invention, each address would have to be entered separately by a user, requiring considerable time. However, with the present invention, the user can be presented with a slide show, capable of being stopped at any desired moment, of unrelated sites that may address multiple or single topics of interest. The user's experience in accessing the World Wide Web becomes analogous to browsing several publications sequentially instead of reading a single publication in its entirety, i.e., accessing a single-source, static-destination web site.

Vertical Navigation

The system 10 of the present invention may be used to achieve vertical navigation of a plurality of web site addresses. Fig. 6 depicts a typical web home page wherein numerous links to other pages within the web site are presented to the user, e.g., in the form of buttons 80 or keyword links 82. Upon selecting a link, the corresponding web page address is presented to the user. As such, to reach the various linked pages within the web site and/or to drill through the multiple layers of web pages that may be present in the web site, the user must select the link for each individual page. If a desired web page resides multiple layers of pages from the home page, the user must traverse each intermediate layer before finally reaching the desired web page.

However, upon invoking the present invention, e.g., by selecting the activator 84, the various links within the web site are written to web site list field 42 by automatic operation of the composer 12, and a slide show presentation of the various pages within the web site may begin.

An example of a vertical navigation web site address list, wherein the plurality of links within a single web site are provided, is presented in Fig. 7. Once invoked, the present invention exhibits display screen 50 to the user, incorporating web site display area 52 and system-interactive user area 54, and presents a slide show of the linked web pages within the web site as depicted in Fig. 8 to the user 24 of the performer 14. The user 24 may, of course, pause on any web page desired for any amount of time and then resume the slide show presentation provided by the present invention.

Item Navigation

The system 10 of the present invention may be used to achieve item navigation of a plurality of web site addresses. Item navigation is most applicable to a listing of search results from a World Wide Web search engine or other knowledge base/data base search program (e.g., keyword search, list box, category reference, etc.). An example of a typical listing of search results from a search engine is presented in Fig. 9. As shown, each of the results provides a linked web site address 86 and a snippet 88 of the web site containing the search terms from the user's search query. Snippet 88 provides only a minor insight into the actual overall content of the web site. As such, the user must select each link to access the web site for review and determination of relevance to the user's interest. To access yet another search result link, the user must return to the list of search results and select another web site for review; a tedious and time consuming process.

However, upon invoking the present invention, e.g., by selecting the activator 84, the various links within the search result listing are written to web site list field 42 by automatic

operation of the composer 12 and an application programming interface that integrates with site-based search functions, and a slide show presentation of the various pages of the search result listing may begin. An example of an item navigation web site address list, wherein the plurality of links corresponds to a list of search results, is presented in Fig. 10. Once the present invention is invoked, the user need not return to the results list to access the next item. Each page is presented automatically, per Fig. 11, wherein display screen 50 incorporating web site display area 52 and system-interactive user area 54 is presented to the user through the operation of the performer 14. The user may, of course, pause on those pages they find interesting and/or relevant, then resume the automated presentation.

The present invention may be used to achieve one, two or all and/or a combination of the above-described manners of navigation including those situations where one type of navigation is embedded within another type of navigation. Of course, the present invention may be used to implement other manners of navigation without departing from the spirit or scope of the invention. Furthermore, each of the presentations viewed may be additionally enhanced with an audio overlay.

Thus, in view of the above, it can be seen that besides guiding visitors more quickly to relevant content, the present invention virtually eliminates the attention that visitors normally invest in pointing, clicking, and scrolling through web pages. As such, visitor satisfaction and productivity is increased, i.e., visitors to a web site stay longer, absorb more information, and return more quickly. The model of a passive site and active visitor clicking through pages is replaced by the adaptive presentation model of active site and active visitor. In this active site/active visitor model the site owner or developer can offer a range of tours through a site

wherein each tour is adapted to the interests of a wide range of target audiences. Meanwhile, the visitor can have single-click control for pausing at any page to delve more deeply into available content and can also control the pace of presentation as well as select another presentation. Instead of actively pursuing random paths through web sites one click at a time, visitors now
5 have a choice. They can relax and enjoy one or many pre-established presentations -- all with the option of stopping and/or diverting anytime they encounter interesting content.

Auto Compose

An alternative embodiment of the invention also provides system 10 with an auto
10 compose function. The auto compose function is a manner whereby the content of a web site may be displayed automatically without requiring the user to enter a plurality of URLs and without depending on the web presenter to create a custom presentation.

A flow chart diagramming the auto compose function is shown in Fig. 12. As indicated, per operations block 902, the operation of the performer 14 is launched (via any appropriate
15 method, e.g., site activation button, opening a performer web site, etc.) whereby the viewer is presented with the opportunity to view a desired web site in auto compose format, see example auto compose screen on Fig. 13, where a "view now" 100 button is provided. Upon entering/selecting a desired web site through the performer 14, see Fig. 14 for an example pop-up box 102 initiated by the "view now" 100 button for entry of a user's desired web site, the
20 composer 12 is invoked and operates to extract the details, in one of three manners, to automatically compose a presentation based on the user's desired web site.

The first method of extraction by composer 12 is by reviewing the user's desired web page and extracting all hyperlinks, i.e., hrefs, that are within the page and then forming these as a list for use by the performer 14, per operations block 904 of Fig. 12. The second manner of extraction by composer 12 is by searching for a presentation/rendition text file that has been placed within the root directory of the web site, per operations block 906 of Fig. 12. The text file has preferably been previously placed within the root directory by the creator of the web site. An example listing 104 of such a text file is shown in Fig. 15. In this instance, the text file not only includes URLs (both directory URLs and document URLs may be included and used interchangeably) to which the performer will be directed for display but also includes additional attributes to define the duration, rotation, etc., of the presentation. The third method of extraction by composer 12 is through searching for a composer-recognizable meta tag within the web page, per operations block 908 of Fig. 12. This meta tag has preferably been pre-established within the web page and includes a URL or URL/attribute listing, similar to the text file of Fig. 15, whereby the URLs can be loaded for use by the performer 14. An example meta tag is provided hereinbelow:

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<meta name="surfgear" content="title=Virtual Coast - Site Tour, duration=5,rotations=1,
state=foreground, profile=minimized, audio=vc1.asf,url1=test.htm, url2=index.htm,
url3=phil.htm, url4=projects.htm,url5=surfgear, url6=sourcewave, url7=cyberecology,
url8=ventureplanet,url9=team.htm, url10=DQ.htm, url11=public.htm,
url12=mspcitybusiness,url13=mnpublicradio, url14=contact.htm, url15=lowertown">
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It should be noted that the composer 12 of the present invention preferably utilizes specifications in XML format for the composing of the presentation, however, an HTML format and/or a conversion from HTML to XML may be utilized by the composer 12.

Once the presentation details have been extracted, i.e., the URLs have been obtained and loaded for use by the performer 14, the performer 14 preferably begins displaying the URLs in listed order, per operations block 910, while the user is provided with a background or foreground control panel window, see example of control panel window 106 in Fig. 16 which operates similarly to the system-interactive user area 54 of Fig. 4, per operations block 912 of Fig. 12. The control panel window 106 preferably provides the recognizable buttons of play, stop/pause, step forward/backward, beginning/end of presentation and the lower sets of double arrows providing for increasing/decreasing the pace of the presentation. The side up/down arrow buttons enable the user to adjust various other parameters of the presentation and/or to enter a new website for automatic composition of a presentation. It should be noted that the control panel window 106 may be used for control of any of the types of presentations described herein and is not strictly limited to that of the auto compose.

While auto compose can easily be used by a web viewer to have a custom presentation of a web site automatically generated, auto compose can also be used by web presenters as an alternative to the manual composition function for providing presentations of their web site. The web presenter can simply provide a hyperlink back to the auto compose scheme, which is preferably maintained as an active server page (.asp). This hyperlink can be presented as a manually activated hyperlink or an automatically activated hyperlink, such as activation upon opening an e-mail message.

Screen Saver

An alternative embodiment of the invention also provides system 10 with a screen saver function. The screen saver function enables the user to enjoy their favorite web content

automatically in screen-saver mode and additionally allows both the user and the presenter the ability to easily change the content that their screen saver presents at any time.

The screen saver function is performed by installing an activator for the performer/composer software that has been specifically configured to perform as an .scr file, i.e.,
5 screen saver file. Activating/reactivating the screen saver configuration results in the user being prompted to enter the name of an established presentation or a web site whereby the auto compose function will be invoked to auto compose its own presentation, as described in the section immediately above. Upon the user's computer entering screen saver mode, the presentation appears and sequences as any of the other presentations described above. Exiting
10 screen saver mode by activating the desktop of the computer results in an automatic termination of the presentation. A control window panel may or may not be provided as desired.

In a preferred embodiment, the screen saver trigger (.scr file) is found at the web site of the customizable web site access system of the present invention and can be downloaded to the user's appropriate directory, e.g., 'c:\windows\system', 'c:\windows\system32', 'c:\winnt\system',
15 or equivalent. The user may then select the presentation trigger as their screen saver, and upon entering the computer's display settings may select a rendition for screen saver display. The rendition can be changed at anytime to the user's desired rendition, which can even include auto compose.

It should be noted that the screen saver can also be used by a web presenter to create a
20 custom screen saver that is available to the web viewer, via manual or auto compose. The web presenter can easily change the content that their screen saver provides to the web viewer at any time by modifying the contents of their rendition.

The present invention may be embodied in other specific forms without departing from the spirit of the essential attributes thereof; therefore, the illustrated embodiments should be considered in all respects as illustrative and not restrictive, reference being made to the appended claims rather than to the foregoing description to indicate the scope of the invention.